

WHAT IS CLAIMED IS:

1. A composition comprising:
at least one adhesion promoter compound, the at least one adhesion promoter compound comprising an alkoxy moiety, a carbon- and oxygen-containing non-aromatic ring structure, and a reactive group; and
at least one fluorinated component, the at least one fluorinated component including from about one to about 100 carbon atoms.
2. A coated article comprising a surface and a coating on the surface, the coating comprising the reaction product of the composition of claim 1.
3. The composition of claim 1, wherein the oxygen-containing ring structure comprises a furfuryl-containing ring structure.
4. The composition of claim 1, wherein the oxygen-containing ring structure comprises a pyran-containing ring structure.
5. The composition of claim 1, wherein the alkoxy moiety comprises a C₁ to C₈ straight or branched non-aromatic alkoxy moiety.
6. The composition of claim 1, wherein the alkoxy moiety comprises a C₁ to C₅ straight or branched non-aromatic alkoxy moiety.

7. The composition of claim 1, wherein the alkoxy moiety comprises from about one to about 60 total carbon atoms.
8. The composition of claim 1, wherein the alkoxy moiety comprises from about three to about 30 total carbon atoms.
9. The composition of claim 1, wherein the alkoxy moiety comprises from about three to about six total carbon atoms.
10. The composition of claim 1, wherein the alkoxy moiety comprises a dipropoxylated structure.
11. The composition of claim 1, wherein the alkoxy moiety comprises a diisopropoxylated structure.
12. The composition of claim 1, wherein the at least one fluorinated component comprises at least one of a trifluoro group, a difluoro group, a difluorochloro group, a difluorobromo group, a difluorohalo group, a monofluoro group, a monofluorodichloro group, a monofluorodibromo group, and a monofluorodihalo group.
13. The composition of claim 12, wherein the at least one fluorinated component comprises at least one trifluoromethyl group.

14. The coated article of claim 2, wherein the coating includes an exposed surface area populated with more than about fifteen percent by area trifluoromethyl groups and has a surface energy of about 22 dynes/cm or lower at 20°C.

15. The composition of claim 1, wherein the reactive group comprises at least one of an alcohol, an amine, an isocyanate, an acrylate, a methacrylate, an epoxy, a vinyl, a silicone, a silane, an acetate, an alkyd, a mercaptan, a thio, a phosphate, an acid, an ester, and a combination thereof.

16. The composition of claim 1, wherein the at least one adhesion promoter comprises a propoxylated furfurylated monomer.

17. The composition of claim 16, wherein the propoxylated furfurylated monomer comprises a reactive group, and the reactive group comprises one or more of an alcohol, an amine, an isocyanate, an acrylate, a methacrylate, an epoxy, a vinyl, a silicone, an acetate, an alkyd, a mercaptan, a thio, a phosphate, an acid, an ester, and a combination thereof.

18. The composition of claim 17, wherein the propoxylated furfurylated monomer comprises at least one of an acrylate and a methacrylate.

19. The composition of claim 1, wherein the at least one fluorinated component comprises a fluoroalkyl group.

20. The composition of claim 1, wherein the fluorinated component comprises at least one of an alcohol, an amine, an isocyanate, an acrylate, a methacrylate, an epoxy, a vinyl, a silicone, a silane, an acetate, an alkyd, a mercaptan, a thio, a phosphate, an acid, an ester, and a combination thereof.

21. The composition of claim 1, wherein the at least one adhesion promoter is present in an amount of from about 0.1 percent by weight to about forty percent by weight based on the total weight of the composition.

22. The composition of claim 21, wherein the fluorinated component includes at least one trifluoromethyl group.

23. The composition of claim 1, further comprising a fluorinated solvent.

24. A composition comprising the reaction product of at least one fluorinated component and at least one propoxylated furfurylated component, the at least one fluorinated component including from about one to about 100 carbon atoms.

25. The composition of claim 24, wherein the at least one fluorinated component comprises a fluoroalkyl group.

26. The composition of claim 24, wherein the fluorinated component comprises at least one of an alcohol, an amine, an isocyanate, an acrylate, a methacrylate, an epoxy, a

vinyl, a silicone, a silane, an acetate, an alkyd, a mercaptan, a thio, a phosphate, an acid, an ester, and a combination thereof.

27. The composition of claim 24, wherein the propoxylated furfurylated component comprises at least one of an alcohol, an amine, an isocyanate, an acrylate, a methacrylate, an epoxy, a vinyl, a silicone, a silane, an acetate, an alkyd, a mercaptan, a thio, a phosphate, an acid, an ester, and a combination thereof.

28. The composition of claim 24, wherein the propoxylated furfurylated component comprises an acrylate or a methacrylate.

29. The composition of claim 24, wherein the propoxylated furfurylated component is present in an amount of from about 0.1 percent by weight to about 40 percent by weight of based on the total weight of the composition.

30. The composition of claim 24, further comprising at least one of a filler, a pigment, a plasticizing agent, an antifungal agent, an antibacterial agent, a UV inhibitor, and a mixture thereof.

31. The composition of claim 24, further comprising a fluorinated solvent.

32. A coated article comprising a surface and a coating on the surface, the coating comprising the composition of claim 24.

33. A method comprising:

providing a first component and second component, the first component comprising at least one adhesion promoter compound comprising an alkoxy moiety, a carbon-and oxygen-containing non-aromatic ring structure, and a reactive group, the second component comprising at least one fluorinated component including from about one to about 100 carbon atoms; and

applying the first and second components to a surface to form a coating on the surface.

34. The method of claim 33, further comprising contacting the first and second components with each other prior to applying the first and second components to the surface.

35. The method of claim 33, further comprising reacting the first and second components with each other prior to applying the first and second components to the surface.

36. The method of claim 33, further comprising reacting the first and second components with each other after applying the first and second components to the surface.

37. The method of claim 33, wherein applying comprises applying one of the first and second components to the surface and then applying the other of the first and second components to the surface.

38. The method of claim 33, wherein at least one of the first and second components includes a UV-curable component, and the method further comprises exposing the coating to UV-radiation.

39. A composition comprising:

a trifluoromethyl group-containing fluorosilane;
a fluorinated acid anhydride or fluoroanhydride; and
a fluorinated solvent.

40. The composition of claim 39, further comprising:

at least one adhesion promoter compound, the at least one adhesion promoter compound comprising an alkoxy moiety, a carbon-and oxygen-containing non-aromatic ring structure, and a reactive group.

41. The composition of claim 39, wherein the fluorosilane comprises a perfluorooctyltrimethoxysilane.